PACKAGING SYSTEMS FOR HUMAN RECOMBINANT ADENOVIRUS TO BE USED IN GENE THERAPY

[0001] Cross Reference to Related Applications: This patent application is a divisional of serial number 09/506,548 filed February 16, 2000, which is a divisional of serial number 09/334,765 filed June 16, 1999, which is a continuation of serial number 08/793,170 filed March 25, 1997, now U.S. Patent 5,994,128, which is the national stage of and claims priority to International Patent Application PCT/NL96/00244 filed on June 14, 1996, which itself claims priority from European patent application 95201728.3 filed on June 26, 1995, and European patent application 95201611.1 filed on June 15, 1995.

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[0002] Technical Field: The invention relates to the field of recombinant DNA technology, more in particular to the field of gene therapy. In particular the invention relates to gene therapy using materials derived from adenovirus, specifically human recombinant adenovirus. It especially relates to novel virus derived vectors and novel packaging cell lines for vectors based on adenoviruses.

[0003] Background: Gene therapy is a recently developed concept for which a wide range of applications can be and have been envisioned. In gene therapy a molecule carrying genetic information is introduced into some or all cells of a host, as a result of which the genetic information is added to the host in a functional format.

[0004] The genetic information added may be a gene or a derivative of a gene, such as a cDNA, which encodes a protein. This is a functional format in that the protein can be expressed by the machinery of the host cell.

[0005] The genetic information can also be a sequence of nucleotides complementary to a sequence of nucleotides (either DNA or RNA) present in the host cell. This is a functional format in that the added DNA (nucleic acid) molecule or copies made thereof *in situ* are capable of base pairing with the complementary sequence present in the host cell.

[0006] Applications include the treatment of genetic disorders by supplementing a protein or other substance which, because of the genetic disorder, is either absent or present in insufficient